Coso Valley Groundwater Basin

- Groundwater Basin Number: 6-55
- County: Inyo
- Surface Area: 25,600 acres (40 square miles)

Basin Boundaries and Hydrology

Coso Valley Groundwater Basin underlies a northerly trending valley in southwest Inyo County. Surface elevations range from about 2,260 feet above mean sea level at Airport (dry) Lake to about 3,200 feet at the north end of the basin. The basin is bounded by nonwater-bearing consolidated rocks of the Coso Range on the north and northwest, the Argus Range on the east, and by volcanic highlands on the west. The White Hills form the southern boundary and are composed of an assembly of Quaternary volcanic rocks and exposed lucustral deposits. Fan deposits extending from the Argus Range to the White Hills form the basin's southeast boundary (Jennings 1962; DWR 1964).

Runoff from the surrounding Argus and Coso Ranges drains south towards Airport Lake located near the southern end of the valley. The principal drainage, beginning at the northern end of the valley, is Coso Wash. Annual rainfall ranges from 4 to 8 inches (DWR 1964).

Hydrogeologic Information

Water Bearing Formations

Quaternary alluvium forms the principal water-bearing unit within the basin. Included in this unit are the unconsolidated younger alluvial deposits and underlying unconsolidated to poorly consolidated older alluvial deposits. Thickness of the alluvial fill is at least 117 feet (DWR 1964).

Recharge and Discharge Areas

Recharge to the basin is primarily from the percolation of runoff from the Coso and Argus Ranges. Other sources of recharge include subsurface inflow and infiltration of rain that falls on the valley floor. Percolation through alluvial fan deposits at the base of the Coso and Argus Ranges, provide the principal recharge to the basin. Groundwater moves through the younger alluvium and underlying older alluvium in a southerly direction towards Airport Lake. Discharge to the Indian Wells Groundwater Basin likely occurs beneath the fan deposits that form the southeast boundary of the basin (DWR 1964).

Groundwater Storage

Groundwater Storage Capacity. Total storage capacity is estimated to be about 390,000 af (DWR 1975).

Groundwater in Storage. Unknown.

Groundwater Budget (C)

Groundwater budget information is not available.

Groundwater Quality

Characterization. Groundwater beneath the Coso Valley Groundwater Basin is of unknown quality because of a lack of chemical analyses of water from wells. However, an analysis of water from a well located two miles south of the basin was of marginal quality due to elevated chloride content. This suggest the groundwater beneath Coso Valley may also be of marginal quality since groundwater likely moves from Coso Valley Groundwater Basin directly into Indian Wells Valley Groundwater Basin (DWR 1964).

An analysis of surface water from Mountain Springs Canyon, which discharges into the basin from the Argus Range on the east, indicates this source is suitable for most beneficial uses and is reportedly calcium-sodium bicarbonate in character (DWR 1964).

Impairments.

Well Production characteristics

	Well yields (gal/min)
Municipal/Irrigation	
	Total depths (ft)
Domestic	
Municipal/Irrigation	

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
	Groundwater levels	
	Miscellaneous water quality	
Department of Health Services and cooperators	Title 22 water quality	

Basin Management

Groundwater management:
Water agencies
Public
Private

References Cited

California Department of Water Reasources (DWR). 1964. *Ground Water Occurrence and Quality Lahontan Region*. Bulletin No. 106-1. 439 p.

____. 1975. *California's Ground Water*. Bulletin No. 118. 135 p.

Jennings, C.W. ed. 1958. *Geologic Map of California: Death Valley Sheet.* Olaf P. Jenkins Edition California Department of Conservation, Division of Mines and Geology. Scale 1: 250,000.

Jennings, C.W. *et al*. 1962. *Geologic Map of California: Trona Sheet.* Olaf P. Jenkins Edition. California Department of Conservation, Division of Mines and Geology. Scale 1: 250,000.

Errata

Substantive changes made to the basin description will be noted here.